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LANGUAGE RESEARCH STUDY--PROJECT HEAD START. DEVELOPMENT OF METHODOLOGY FOR OBTAINING AND ANALYZING SPONTANEOUS VERBALIZATIONS USED BY PRE-KINDERGARTEN CHILDREN IN SELECTED HEAD START PROGRAMS--A PILOT STUDY.

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THIS STUDY WAS DESIGNED TO DEVELOP METHODOLOGICAL APPROACHES FOR OBTAINING AND ANALYZING CONTINUOUS EXPRESSIVE LANGUAGE SAMPLES USED BY PRE-KINDERGARTEN CHILDREN WHEN THEY COMMUNICATE WITH EACH OTHER. IT ALSO WAS TO CONSIDER MEANS FOR ANALYZING THESE SAMPLES THAT WOULD YIELD CERTAIN QUALITATIVE AND QUANTITATIVE METHODS. FOUR INVESTIGATORS WERE ASSIGNED TO A DIFFERENT HEAD START CLASSROOM TO GENERALLY ENCOURAGE THE CHILDREN TO TALK AND KEPT CONTINUOUS, DETAILED, NARRATIVE DESCRIPTIONS OF FUNCTIONAL LANGUAGE USED BY THE CHILDREN. DURING THE LAST HALF OF THE PROGRAM, CHILDREN'S LANGUAGE RESPONSE TO SPECIFIC STIMULUS SITUATIONS WERE TAPE RECORDED, WITH THE ATTEMPT TO DETERMINE A REPRESENTATIVE RANGE FROM MOST TO LEAST VERBAL CHILDREN. (CO'D)

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FINAL REPORT : LANGUAGE RESEARCH STUDY -- PROJECT HEAD START

Development of Methodology for Obtaining and Analyzing Spontaneous Verbalizations Used by Pre-Kindergarten Children in Selected Head Start Programs: A Pilot Study

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Jane Raph
Project Coordinator
October 18, 1965

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Development of Methodology for Obtaining and Analyzing Spontaneous Verbalizations Used by Pre-Kindergarten Children in Selected Head Start Programs: A Pilot Study

I. Head Start Pre-Kindergarten Programs

A. Background

It has been generally recognized that children from low socioeconomic circumstances have major handicaps at the time of entrance to school, handicaps which limit their ability to profit from learning opportunities provided them in the standard public education sequence beginning with the half-day kindergarten programs for 5 year olds.

Classes designed to help such children between the ages of 4½ and 5½ develop readiness for entrance to kindergarten in communities where public kindergartens would then be available to them in the fall were initiated by the Office of Economic Opportunity in the summer of 1965 through local school systems. Planned activities were similar to those in nursery school with considerable time devoted to free play where children might function on their own or with others in pursuits of their own choosing. Help was given these children in extending the range of their experiences, interests, and skills; following simple instructions; adapting to routines; and interacting cooperatively with others.

Each Head Start class was made up of approximately 15 children selected from families designated as disadvantaged by the local community's standards, and in accordance with OEO's regulations for Head Start. Each class had a staff of three adults,

one of whom met professional teacher certification standards. Additional personnel included administrative and supervisory staff, social workers, psychologists, nurses, physicians, food service workers, custodians and community volunteers, all of whose time and duties spent in the Head Start program varied according to the size and design of the individual sponsoring school system.

B. Purposes

The summer programs had as their primary purpose fostering the children's readiness for school. In addition, study and assessment of the children's physical, emotional, social, and intellectual development were regarded as an important secondary aim of Operation Head Start. Systematic information regarding the functioning of these children in their first formalized experience away from home in a relatively controlled setting was to be obtained. This knowledge would hopefully, then furnish a basis for evaluation of some of the effects of early instruction on these children, as well as the influence of a preschool experience on their later school performance. New behavioral data on this heretofore infrequently studied group of children might also stimulate examination and modification of traditionally middle-class oriented nursery school curricula and instructional strategies. With these latter goals in view, a pilot study of language and speech in disadvantaged children was undertaken.

II. Language and Speech Pilot Study

A. Problem

One of the major deficits of culturally disadvantaged children is the conspicuous handicap in language and speech among many of them. The nature of the deficit has been described in various ways. Templin (1957) noted that children of the lower socioeconomic group take about a year longer to reach essentially mature articulation than do those of the upper and middle socioeconomic group. Beckey (1942) reported significantly more children with retarded speech belonged to lower socioeconomic groups. John and Goldstein (1964) showed specific limitations in the disadvantaged group's ability to label, discriminate, categorize, and generalize. Deutsch and associates (1964) demonstrated that although verbal output, mean sentence length, number of different words used, etc. differed with social class or race, such differences occurred in conjunction with significant differences in IQ performance. Their results emphasized the intimate relationship between measures of IQ and verbal proficiency. Raph (1965) summarized research to date noting that the process of language acquisition for socially disadvantaged children, in contrast to middle-class children is more subject to lack of vocal stimulation during infancy, to a paucity of experiences in dyadic exchanges with more verbally mature adults in the first three or four years of life, to severe limitations in the opportunity to develop mature cognitive behavior, and to emotional encounters of

such a nature as to result in the restricting rather than expanding of conceptual and verbal skills. She concluded by emphasizing the pressing demand for obtaining both developmental and sub-cultural studies on the specific nature of the language inadequacies.

Methodology employed in obtaining language and speech samples in children has traditionally utilized adult questioning of individual children, or procedures which place children in a somewhat formal setting and do not permit them to respond spontaneously with peers (McCarthy 1954, Templin 1953, Irwin 1960). Analysis has tended to deal with the more readily quantifiable aspects such as sentence length, vocabulary variety, and ratio of parts of speech to total output at a given age. Analysis of more functional aspects where content, nature and frequency of verbal interactions, purposes, and referents are considered has not been attempted to any great extent.

It was therefore decided to use certain Head Start summer programs in New Jersey as an opportunity to develop approaches for obtaining interpersonal, interactive speech exchanges used by the children, and to consider means of analyzing such samples which would yield certain qualitative as well as quantitative dimensions.

B. Purposes

This study was designed to develop methodological approaches for obtaining and analyzing continuous expressive language samples used by pre-kindergarten children in their communications with

each other. Efforts were directed toward maximizing opportunities for language expression among children; evolving reliable means of recording representative samples of such exchanges; and setting forth and applying criteria for analysis of the language samples which would make possible eventual quantification of language and speech characteristics.

C. Population

Four Investigators were each attached to a different Head Start classroom. One Investigator participated daily throughout the eight week program. The other Investigators participated from two to four days per week for the full length of the program. The settings were as follows:

1. East Orange Public Schools: An urban neighborhood adjacent to Newark, New Jersey. 9 Males and 6 Females (13 Negro and 2 white children).
2. East Orange Public Schools. Same neighborhood as Setting 1. 5 Males and 10 Females (15 Negroes).
3. Piscataway Township Public Schools: A more rural neighborhood, on the periphery of a college town - New Brunswick, New Jersey. 9 Males and 2 Females (8 Negro, 2 white, 1 Latin).
4. Bridgewater-Raritan Public Schools. A suburban neighborhood adjacent to a business district. 10 Males and 10 Females (3 Negro and 17 white children).

D. General Procedures

An adaptation of a procedure used by Dr. Vera John was used in which several qualified Investigators were each designated as a "librarian" and each assigned to one Head Start classroom for the eight week program. Each Investigator during the early part of the program fitted into the unit, assisted where needed, told stories to individual children or to small, spontaneous groups, initiated informal conversations, and generally encouraged the children to talk,

Throughout the program, but especially during the first weeks, the Investigators keep continuous, detailed, narrative description of the functional language used by individual children. During the latter half of the program, taped recordings of the children's language in response to specific stimulus situations were obtained.

E. Specific Procedures

1. Methods of Data Collection

a. Narrative descriptions of language samples. During the first four weeks of the summer Head Start program, each Investigator wrote narrative descriptions of language sequences used by the children as they participated in play and routines of the classroom. The language sequences were obtained through direct observation and auding. Selection of the verbal behavior to record was informal.

Consideration was given to obtaining illustrative conversations of children interacting with each other, of spontaneous contributions of the most and least verbal children in a class, and increasingly throughout the summer period, of conversations generated by any activity which held promise for optimal stimulation of conversation between children.

Appendix C contains the (10) language samples obtained through written narrative accounts.

b. Transcribed taped recordings of language samples. During the latter half of the program, the Investigators made use of a Wollensak tape recorder with a standard microphone set up in one corner of the classroom, or in an adjacent room. Here the Investigators began orienting children to the idea of talking into the microphone, answered the children's inquiries about the machine, gave them opportunity to hear their conversations played back, and in general attempted to de-sensitize the children to the experience of having their talk tape-recorded. Where feasible, after the recorder was moved to an adjacent room, children were selected to come in pairs or small groups. Recordings were made with two purposes in mind: First, each of the Investigators was exploring in his individual class certain trial standard-stimulus approaches which would offer

potential for eliciting spontaneous verbal interactions between and among children with a minimum of questioning or encouragement by the Investigator. Secondly, the Investigators were attempting to obtain language samples from the most and least verbal children in each classroom in order to have a representative range of amount and style of language from which to formulate methods of analysis.

In conjunction with the Project's interest in developing a standard-stimulus situation which would make possible comparisons of children from different backgrounds and ages, several conversations of young, middle-class children were also tape-recorded and transcribed.

Appendix D contains the (25) transcribed taped recordings of language samples obtained during this time.

2. Methods of Data Analysis

   a. Qualitative evaluation of narrative description method of obtaining language samples

   b. Qualitative evaluation of preliminary rating scales developed to appraise language and speech from direct observation and auding

   c. Qualitative evaluation of transcribed taped recording method of obtaining language samples

   d. Qualitative evaluation of standard-stimulus approaches to obtaining taped transcription language samples

e. Qualitative evaluation of Investigator's role in collection of language samples

f. Descriptive summary of problems in analysis language and speech characteristics of disadvantaged children

F. Results

1. Narratively Described Language Samples.

Advantages. This approach as used by each Investigator in the classroom served initially to sharpen his awareness of the talking children did, when they did it, how they sounded, and how they differed from each other in a general way. It also permitted him to use the time for interacting with children without pressure of meeting any standard rigors of time sampling, etc., or without any specific instructional duties.

Such written descriptions had the added advantage of permitting the recording of language exchanges as these occurred in relation to a child-initiated activity. Something of the flavor of the exchange could be captured on the spot -- such as the child's play-acting of a scene at the dinner table, mutual engagement of two children in putting a puzzle together, an altercation between children over a toy, etc.

Limitations. The obtaining of accurate speech samples by the Investigator through note-taking proved

to be a difficult task. Writing down a conversation in progress meant that the Investigator often lost some words and much of the non-verbal behavioral details. Reliability of such samples, although not tested, was undoubtedly poor. Even with some degree of success in noting the essence of what a child or children said, much of the emotional dimension was not reflected in the transcribed notes. Such characteristics as pitch, intonation, pauses, inflection, rate, volume, and quality could not be indicated accurately in the written account. Although two of the Investigators had facility in using the IPA, the Coordinator concluded that for the present Project such records would sacrifice too much other information to be practical for this exploratory stage of the research.

Recommendations. It is recommended that written, narrative descriptions as a method of obtaining language samples be utilized, in the future, either as a preliminary step to describing and evaluating the children's language, or as a supplemental one to the electrical recording of language.

2. Preliminary Observational Rating Scales.

The Investigators generally agreed that they became able through daily observation to do a crude ranking of the children in a classroom group from the most "proficient" to the least "proficient" speakers.

The criteria of the raters, however, were not identical but generally reflected some of the following: (a) amount a child verbalized; (b) the quality of his verbalization with regard to vocabulary; (c) complexity of sentence structure; (d) "level" of concepts used; (e) accuracy of articulation; (f) fluency; (g) grammar; (h) certain functional aspects such as initiations, etc.

Yeager ("14 Factor" Check-List) and Smith (Verbal Proficiency Scale) (Appendix E) each developed a preliminary series of items which could be checked as one listened to a child talking in the classroom. These instruments were applied to several children, and have some promise, but will require considerably more refinement prior to any systematic use. Operational definitions need sharpening. Reliability would need extensive work.

3. Transcribed Taped Language Samples.

Advantages. This method, first used in the regular classroom and then used in a quiet room adjacent to the classroom had the obvious advantage of recording more of the child's language than could be recorded by hand. It also permitted the Investigator some more freedom to observe what was actually happening, and to note in writing any details which seemed significant about the child's behavior as he talked.

Since one objective of the Pilot Study was to develop a standard-stimulus approach which would maximize opportunity for expression of idiocyncratic content, mode, and structure in conversation between and among children, the transcribed tapes made certain comparisons possible. In addition to the impressions of each Investigator who tried out a number of different stimuli with different combinations of children, the actual language samples thus obtained formed the basis for making some recommendations regarding the most promising standard-stimulus procedures.

Limitations. The problem of obtaining a clear, audible sample of children's speech against the background of classroom noise was not satisfactorily solved in all situations. One classroom which had several divided sections within the room did permit the Investigator to record in one section with little noise interference from other sections of the room. Lack of a pocket-type microphone meant that the tape recorder and microphone in some instances had to be located in one place, and any following of the children was cumbersome. However, in one class where there were many wall plugs, the Investigator could relatively easily move to where children were engaged in a conversation. The objective of using the classroom activities to pick up spontaneous conversations among children in conjunc-

tion with a natural grouping of children and an activity of their own choosing was realized, in part.

Removal of the tape recorder to an adjoining, quiet room reduced some of the noise interference. One Investigator noted that if children sat on the floor, the scraping of chairs and tables being moved about was eliminated. The microphone then could be in the Investigator's hand, and moved closer to a child who was speaking.

The familiar problem of the time-consuming, arduous task of transcribing tapes was learned anew by this group of Investigators. They found that even though they made notes, and specified details of the taped conversations, the tapes could not be transcribed with any degree of efficiency by a person other than the one present at the time of the recording. The ordinary foot pedal attached to the tape-recorder for play-back made re-playing a small section of the tape awkward and time consuming also. Exploration of more efficient play-back equipment should be done. The added time, and cost of typing and duplicating these records is formidable, also, and suggests judicious planning of such data gathering.

The resulting typed transcripts, like those made from note-taking, had a flat quality to them - with little evidence of the emotional tone of the exchange - pitch, inflection, rate, volume, etc. Reliability while

not tested systematically was considerably improved over the note taking, according to the impressions of the Investigators. They stressed the advantage of transcribing tapes as soon as possible after recording while the details were still fresh in the memory of the Investigator.

4. Standard-stimulus Approaches to Obtaining Taped Language Samples.

The Investigators, on the basis of their individual interests, observations made during the early part of the program, and their impressions of children's responses to particular situations attempted two types of approaches to obtaining and recording expressive language: (a) various simple, structured devices; and (b) a semi-controlled (as to space and equipment) free-play situation.

a. Simple, structured devices. These included clay, tinker-toys, puzzles, paper dolls, rings on a pyramid, miniature dolls and furniture, punch clown, hand puppets, telephones, mail box with block inserts, story tell-retell, and Dolch cards.

Effectiveness of these devices for stimulating verbal interactions varied with the Investigator, the children, and the day to such an extent that no consensus was reached on any

one generally satisfactory device. None of the devices was tried by all of the Investigators, and no Investigator tried one device with all children. Certain criteria, however, seem useful in limiting the range of devices to be explored further.

Some devices, for instance were too highly stimulating, such as the hand animal puppets and the punch clowns. These generated much aggression, motoric activity, and loud vocalizations, but little verbal interaction. The telephones, which had appeared to be such a "natural" for obtaining verbal interactions between children created mechanical difficulties which resulted in static, distortion, and echo. (These could well be corrected by some assistance on technical matters.) But, more importantly, the sounds of children handling the phones, uncontrolled bell ringing, and busy signals added to the cumulative noise. Some of the children had no idea how to use a phone. Much of the exchange was a repetition of "hellos," "goodbyes," and "whaddaya doing?" In all, the situation appeared to call for more structure, and how to manage this and retain the interactive quality of a telephone conver-

sation between two children remains a problem. Clay, puzzles, and tinker toys provided a more quiet type of activity with some manipulative opportunity which retained the children's interest, and brought about verbal interactions. The Dolch cards offering some sorting and matching, as well as imitative card-playing discussion were promising. The mail-box, and miniature dolls and furniture afford similar advantages. The Etch-a-Sketch toy used by Hess and Shipman at the University of Chicago reflect some of the values of the last named group of toys.

In summary, a standard-stimulus device should offer some type of quiet, manipulative activity; an open-end type of play (as with miniature dolls and furniture, clay, or tinker toys); and some element of problem solving (puzzles, matching cards, mail-box with inserts).

Not as easily solved is the problem of criteria for selection of pairs or small groups of children for verbal interactions. Should two highly verbal children be paired to measure the characteristics of their interactions, two non-verbal children, or one of each? How will

their level of verbalization be judged before their speech is taped, transcribed, and analyzed?

b. Semi-controlled free-play situation. One Investigator, a trained school psychologist with a background of experience as a therapist with children, first tried out the more unstructured standard play situation in the regular classroom as a way of eliciting spontaneous speech. (Appendix D, DeMeritt, August 2).

He then developed a rationale for such an approach as a standard-stimulus type situation noting that it is suited to a wide range of children of different interests, skills, and levels of development; and that it permits a broad sampling of interactive language behavior. The assumption is further made by DeMeritt that although language style may vary from one sitation to another, a general consistency of form exists which can be obtained whether a child is modeling clay, assembling a puzzle, splashing water, or shifting among all three, as long as the child is relatively free to choose a pursuit in which he is interested, and has the opportunity to talk. The Investi-

gator further argued that while the choice of several activities within the free-play situation did not make identical situational samplings possible, there was sufficient uniformity to permit comparisons. He concluded by stating that where a simulus is identical for each child, as a set of cards, even these are variously perceived by the subject.

On four different days the Investigator then selected a small group of four or five children to come into the play room. He varied the selection to include (1) the four least mature and least verbal children; (2) the four most mature and most verbal; (3) two active and talkative children and two more shy and controlled children; and (4) four very quiet and/or non-verbal children with one talkative child. His judgments about the children were based on observations and on the child's performance on the Peabody Picture Vocabulary Test. Among the four children judged to be the least verbal, for instance, MA's ranged from 2-6 to 3-3 and IQ scores from 57 to 77. Among the most verbal, Ma's ranged from 3-7 to 6-6, and IQ scores from 90 to 129.

Inspection of the transcripts suggests that individual differences are indeed revealed through this type of situation. Several children spoke very little. In contrast, in the most verbal group, children interacted with each other, asked questions, clarified details, elaborated upon differences.

Usefulness of this free-play situation as a means of eliciting language looks worth considering further. Whether the variety in amount and kind is too great to make comparisons possible has to be determined through analysis of the transcripts. Employment of two situations, one the more controlled standard-stimulus situation, and the other the free-play situation might be very interesting. Further attention needs to be given to the play material in the rooms. It was found, for instance, that removal of the bop bag cut down on aggressive behavior, and increased verbalizations. Lastly, as with the standard-stimulus tasks, the rationale and criteria for governing the selection of the children to be grouped together needs to be developed, clarified, and tested.

5. Investigator's Role in Collection of Language Samples

a. Investigator 1 (B. Yeager Fraunfelker)

This investigator felt herself to be an integral part of the classroom with an attendant responsibility. She was present daily for the full eight weeks. When necessary she suspended her data collection activities in order to assist the teacher or to participate in the children's activities. This did much, in her opinion, to facilitate the work. From the first day, her presence and books, toys, and tape-recording equipment appeared to be accepted by the children as a normal part of the environment. She recommends participation of of this sort in future projects. She noted that the rewards of direct and personal communication with these disadvantaged children were immeasurable. In addition, skill in nonverbal communication on the part of teacher and/or investigator also facilitated and speeded the growth of confidence and encouraged the children to attempt verbal expression of their feelings and ideas.

b. Investigator 2 (C.DeMeritt)

After two days this Investigator defined her role to the teacher in regard to the research function of gaining rapport with the children by reading, playing with them, helping them, listening to their stories, holding them, etc. in order to collect data on their language, she was then free to associate mostly with the children. She did on occasion participate in group activities, but did not initiate or lead them unless it was necessary in obtaining taped samples. She was reflecting and accepting of a child's needs and behavior. She set very few limits herself, but upheld those set by the teacher. She also attempted to use consistently good grammar and a little higher level vocabulary when speaking to the children, often repeating their questions or sentences in correct form.

c. Investigator 3 (S. DeMeritt)

This Investigator tended to stay out of the teacher's way, allow her to make the decisions about the children and the activities, follow her schedule and leads. From time to time he would request removal of several children from the room for purposes of obtaining taped speech samples. These were arranged in advance so the teacher could plan around the sessions.

In the classroom he interacted in a non-directive manner, gave few directions, imposed relatively few restrictions, allowed the children to verbalize and behave in almost any fashion, reflected feelings, motives, needs, and goals as well as content of speech and behavior. He further maintained broad limits, that is, followed the time schedule, enforced the place of activities, permitted no excessively rough or destructive play, and supported the major limits advocated by the teacher.

d. Investigator 4 (Doris K. Smith)

Investigator 4 described her role as that of a guest of the school and of the teacher. Her schedule fitted with theirs. She did not interfere with any scheduled events. At storytime, rest time, and lunch, for instance, she observed. She removed the children from testing and structured situations only during free play. She restricted her participation in terms of being that of a teacher's helper. She mingled freely with the children, joined their games, but also kept continuously busy with her own goals of observing interactions and recording speech and language.

In addition she made it a point to get acquainted with each person associated with the project -- the custodian, teacher, teacher aides, teacher-

coordinator, physician, nurse, directors, etc.

Recommendations regarding role of Investigator

Each of the four Investigators was enthusiastic about the opportunities of this role of participant observer and researcher. In addition to the insights they gained about the children, as indicated in the above descriptions, they learned about procedures for handling children in groups, and for teaching them, learned about the rewards and demands of a teacher's work, and concluded that this approach to obtaining information about the characteristics of disadvantaged children was excellent, and should be continued in conjunction with a better formulated research design in ensuing programs.

They recommended that the weekly staff discussions would have been even more productive had each of them spent one day a week in the classroom of another Investigator. Rotated visits were suggested.

6. Methodological Considerations in Analysis of Language and Speech Characteristics of Disadvantaged Children.

The Investigators submitted transcriptions of their of their early observations, narrative descriptions of language, and transcriptions of taped samples regularly throughout the summer program. The responsibilities they assumed for handling their assignments within the classroom, attending some school staff meetings, attend-

ing a few parent meetings, visiting several homes with the nurse, etc. as well as devoting long hours to transcriptions meant they were involved in a highly demanding eight-week job. Transcription of some tapes was continued during September.

The time involved in typing and duplicating the material submitted occupied the services of a half-time typist from July 19 to August 21, a resumption of such services beginning August 30, and the addition of a second half-time typist throughout September. Material was completed on October 9.

This time-lag in reproducing the language samples has not permitted the development of a scheme of analysis of the language material, or any preliminary quantification. However, the Coordinator and the Investigators were highly concerned and interested throughout the Project in this goal, and made some preliminary attempts to consider factors which might be included in such an analysis.

Fraunfelker (Linguistic Errors), and Smith (Verbal Proficiency Scale) (Appendix E) and DeMeritts (Language Analysis Scale) (Appendix E) are suggested models for such an analysis. Some of the dimensions suggested are traditional type measures, and could be applied fairly easily, as for instance, length of sentences, verb tense, proportion of parts of speech to total output, variety of vocabulary, etc. These

would make possible comparisons with middle class norms.

Others would depend for their usefulness on hypotheses to be tested. Concept formation, cognitive development, and internal mediation, for instance, are intimately related to language, might each form a focus for work, and could conceivably be studied in relation to children's interacting with each other verbally.

Of particular interest are certain functional aspects: Purpose of a verbal interaction (Statement of fact, question, request for information or help, description, elaboration of an experience, etc.); Particular concepts (Time, space, amount, referents as all, everyone, he, she, a person's name, etc.); Comparatives and superlatives; Functional uses of statements (Evaluation, comparison or contrast, associations, preferences, motives, cause-effect ideas, conditional statements, etc.); Nature of interactions (Non-communicative sounds, statements directed to another child, responses, commands, threats, etc.).

The whole range of types of grammatical errors, articulation omissions, distortions and substitutions; and emotional tone forms another series of dimensions which could be teased out of the samples and promise to indicate differences in development.

Next steps are some trial categorization and coding of material; generation of specific hypotheses; and trial testing of procedures.

III Summary and Conclusions

In summary, this investigation was designed to develop methodological approaches for obtaining and analyzing continuous, expressive, interactive language samples used by pre-kindergarten children with each other in summer (1965) Head Start programs.

Written narrative descriptions and taped recordings were employed by several Investigators as bases for collection of language samples. Each Investigator was attached regularly 2-4 days per week to one Head Start class. Variations of two approaches to development of a standard-stimulus situation were explored: simple, structured devices, and a semi-controlled, free-play situation. Some preliminary schemes of ratings the verbal facility of children, and of analyzing taped material were proposed. Problems in collection and analysis of language data were described.